CLAIMS

1. A nonaqueous electrolyte secondary battery negative electrode material, characterized by comprising:

graphite particles that have a block-like structure where a plurality of flat graphite fine particles assembles or bonds non-parallel with each other, the aspect ratio of 5 or less and a volume of fine pores in the range of 10 to 10^5 nm in a volume of 400 to 2000 cm^3/kg; and

a layer of carbon formed on a surface of the graphite particle,

wherein a ratio (by weight ratio) of the layer of carbon to the graphite particle is in the range of 0.001 to 0.01.

2. The nonaqueous electrolyte secondary battery negative electrode material of claim 1, characterized in that an average particle diameter (50% D) is 10 μm or more and 50 μm or less, the aspect ratio is 5 or less, the true specific gravity is 2.22 or more, the bulk density is 780 kg/m^3 or more and 1000 kg/m^3 or less, the specific surface area measured by a BET method is 2.0 m^2/g or more and 5.0 m^2/g or less, and, in a Raman spectrum analysis with argon laser light of a wavelength of 5145 Å, an R value expressed by R = I1580/I1350 (in Raman spectrum, I1580 denotes an intensity of a peak P1 in the range of 1580 to 1620 cm^{-1} and I1350 denotes an intensity of a peak P2 in the range of 1350 to 1370 cm^{-1}) is less than 0.2.

3. The nonaqueous electrolyte secondary battery negative

electrode material of claim 1 or 2, characterized in that the viscosity of slurry measured under the conditions below is 0.5 Pa·s or more and 4.0 Pa·s or less.

1) Slurry preparation conditions

binder/(binder + negative electrode material) = 0.10 (by weight ratio)

(binder + negative electrode material)/(binder + negative electrode material + solvent) = 0.45 (by weight ratio)

binder: polyvinylidene fluoride (intrinsic viscosity: 1.1 dl/g) and

solvent: N-methyl-2-pyrohlidone

2) Viscosity measurement conditions

shearing speed: 4.0 sec^{-1} at 25°C

4. The nonaqueous electrolyte secondary battery negative electrode material of any one of claims 1 through 3, characterized in that the bulk density (D1) under pressure of 33 MPa is 1850 kg/m^3 or more and a rate of variation of the bulk density when the pressure is released, which is represented by an equation below, is 0.3 or less.

Rate of variation of the bulk density when the pressure is released = {D2 - D3}/D2

D2: bulk density under the pressure of 97 MPa, and

D3: bulk density when the pressure is released

5. A manufacturing method of a nonaqueous electrolyte secondary battery negative electrode material characterized by

comprising:

dispersing and mixing, in a mixed solution where a thermoplastic polymer compound is dissolved in a solvent compatible therewith, graphite particles having a block-like structure where a plurality of flat graphite fine particles assembles or bonds non-parallel with each other and the aspect ratio of 5 or less;

removing the solvent to prepare graphite particles covered with the thermoplastic polymer compound; and

firing the graphite particles covered with the thermoplastic polymer compound.

6. A nonaqueous electrolyte secondary battery negative electrode, characterized in that the negative electrode material of any one of claims 1 through 4 or the negative electrode material manufactured according to the manufacturing method of claim 5 is used.

7. A nonaqueous electrolyte secondary battery, characterized in that the negative electrode of claim 6 is used.